Remarks

Claims 1-20 are pending in this application. Claims 16-20 have been allowed. Claims 1-15 have been rejected. The invention is believed to be patentable.

Claims 9-15 stand rejected under 35 U.S.C. 112, first paragraph. Applicants direct the Examiner's attention to the application specification at page 3, lines 4-26, and at pages 21-26. The recited features of claims 9-15 are fully explained in the application.

In the final action, the Examiner states that the specification discloses the pitch value between 1 and 5, but fails to indicate measurement units associated with these values to enable one to understand (the claimed features). As noted on page 21 at lines 27-28, "this final integer is loosely associated with the five inflection/pitches of figures 4A-C." At the more detailed level, the illustrated embodiment involves making selective modifications to the inflection/pitch values. The specification clearly explains the way that these values between 1 and 5 relate to the determination of desired inflections for speech items in the sequence of speech items. Applicants respectfully request that the Examiner withdraw this rejection.

Claims 1 and 8 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Coorman et al. (U.S. Patent No. 6,665,641) in view of Conkie (U.S. Patent No. 6,173,263). The Examiner has made this new ground of rejection in the final action, and states that Conkie teaches determining and assigning patterns of timing and intonations to the phonetic segment strings generated by the prosody determination module. The Examiner further states that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Coorman by incorporating the teachings of Conkie in order to produce human-like phonetic speech.

There is no motivation to combine these references to achieve the claimed invention.

Regarding claim 1, claim 1 recites a method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules. The method comprises, in combination with other limitations, determining a syllable count for each speech item in the sequence of speech of items, and determining an impact value for each speech item in the sequence of speech items. The impact values are determinative of where inflection changes are to take place within the sequence of speech items. The method further comprises determining a desired inflection for each speech item in the sequence of speech items based on the syllable count and the impact value for the particular speech item and further based on the set of playback rules.

The Examiner acknowledges that Coorman fails to describe or suggest the claimed combination including determining an impact value for each speech item in the sequence of speech items where the impact values are determinative of where inflection changes are to take place within the sequence of speech items. For this feature, the Examiner relies on Conkie.

According to the claims, the desired inflection is based on the syllable count and the impact value. Coorman fails to suggest this feature. As well, Conkie fails to suggest this feature. There is no suggestion to combine these references to achieve the claimed invention.

The Examiner correctly notes that Conkie describes assigning patterns of timing and intonation to the phonetic segment strings. Conkie further notes that the intonation pattern concerns pitch changes during the course of an utterance, and that these pitch changes express accentuation of certain words or syllables as they are positioned in a sentence and help convey the meaning of the sentence.

However, Conkie is only describing that prosody, or timing and intonation, are determined for the utterance. The invention is not about merely determining prosody, but rather the invention is about, and the claims specifically recite, a specific method for

converting text to concatenated voice involving a specific approach to handling prosody. Specifically, the claims recite determining the desired inflection based on the syllable count and the impact value. Conkie does not suggest this feature. After all, the Conkie approach involves the use of half-phonemes names with concatenation performed at phoneme boundaries or at mid-phoneme as determined by a Viterbi search. Thus, there are no syllable counts in Conkie.

This half-phoneme approach of Conkie makes no suggestion of determining the desired inflection for a speech item based on the syllable count and the impact value for the speech item as recited by Applicants' claims. Conkie only suggests that prosody is important, and that a half-phoneme approach is utilized. Because Conkie and Coorman both fail to suggest a particularly claimed feature of the invention, there is no suggestion to combine Conkie and Coorman to achieve the claimed invention.

The remaining dependent claims that have been rejected are believed to be patentable for at least the reasons given above.

In conclusion, claims 1-15 are also believed to be patentable, and allowance of all pending claims is respectfully requested.

Respectfully submitted,

ELIOT M. CASE ET AL.

By Jeremy J. Curcuri
Jeremy J. Curcuri
Reg. No. 42,454
Attorney for Applicant

Date: 7/27/05

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351